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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: William T. Chen and Peter M. Moran

For: METHOD AND APPARATUS FOR Attorney Docket No.: 11042-005
FORMING A METALLIC FEATURE ON A
SUBSTRATE

**POWER OF ATTORNEY BY ASSIGNEE
AND EXCLUSION OF INVENTOR(S) UNDER 37 C.F.R. 3.71**

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The undersigned assignee of the entire interest in the above-identified subject application hereby appoints: Berj A. Terzian (Reg. No. 20060), David Weild, III (Reg. No. 21094), Jonathan A. Marshall (Reg. No. 24614), Barry D. Rein (Reg. No. 22411), Stanton T. Lawrence, III (Reg. No. 25736), Charles E. McKenney (Reg. No. 22795), Philip T. Shannon (Reg. No. 24278), Francis E. Morris (Reg. No. 24615), Charles E. Miller (Reg. No. 24576), Gidon D. Stern (Reg. No. 27469), John J. Lauter, Jr. (Reg. No. 27814), Brian M. Poissant (Reg. No. 28462), Brian D. Coggio (Reg. No. 27624), Rory J. Radding (Reg. No. 28749), Stephen J. Harbulak (Reg. No. 29166), Donald J. Goodell (Reg. No. 19766), Thomas E. Friebel (Reg. No. 29258), Laura A. Coruzzi (Reg. No. 30742), Jennifer Gordon (Reg. No. 30753), Geraldine F. Baldwin (Reg. No. 31232), Victor N. Balancia (Reg. No. 31231), Samuel B. Abrams (Reg. No. 30605), Steven I. Wallach (Reg. No. 35402), Marcia H. Sundeen (Reg. No. 30893), Paul J. Zegger (Reg. No. 33821), Edmond R. Bannon (Reg. No. 32110), Bruce J. Barker (Reg. No. 33291), Adriane M. Antler (Reg. No. 32605), Thomas G. Rowan (Reg. No. 34419), James G. Markey (Reg. No. 31636), Thomas D. Kohler (Reg. No. 32797), Scott D. Stimpson (Reg. No. 33607), Gary S. Williams (Reg. No. 31066), Ann L. Gisolfi (Reg. No. 31956), Todd A. Wagner (Reg. No. 35399), Scott B. Familant (Reg. No. 35514), Kelly D. Talcott (Reg. No. 39582), Francis D. Cerrito (Reg. No. 38100), Anthony M. Insogna (Reg. No. 35203), Brian M. Rothery (Reg. No. 35340), Brian D. Siff (Reg. No. 35679), Michael J. Lyons (Reg. No. 37386), Garland T. Stephens (Reg. No. 37242), William J. Sipio (Reg. No. 34514), Nikolaos C. George (Reg. No. 39201), Stephen S. Rabinowitz (Reg. No. 40286), Ognjan V. Shentov (Reg. No. 38051), and Kenneth L. Stein (Reg. No. 38704), all of Pennie & Edmonds LLP, whose addresses are 1155 Avenue of the Americas, New York, New York 10036, 1667 K Street N.W., Washington, DC 20006 and 3300 Hillview Avenue, Palo Alto, CA 94304, all of Pennie & Edmonds LLP (PTO Customer No. 20583), as its attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, said appointment to be to the exclusion of the inventors and their attorney(s) in accordance with the provisions of 37 C.F.R. 3.71, provided that, if any one of these attorneys ceases being affiliated with the law firm of Pennie & Edmonds LLP as partner, counsel, or employee, then

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the appointment of that attorney and all powers derived therefrom shall terminate on the date such attorney ceases being so affiliated.

Documentary evidence of an assignment of the entire interest in the above-identified subject application:

- was recorded on _____ at reel/frame / _____.
 is submitted herewith for recording.
 is submitted herewith and will be properly recorded.

Please direct all correspondence for this application to customer no. 20583.

ASSIGNEE: Institute of Materials Research and Engineering

Name Dr. Chou Sun Chee

Title Deputy Director

Address 3 Research Link Singapore 117602

Signature S C Chou

Date 12th March 2002

ASSIGNMENT

WHEREAS, WE, William T. Chen and Peter M. Moran, ASSIGNORS, citizens of the United States and South Africa respectively, whose mailing addresses are 12 Oxford Drive, Endicott, New York 13760 and #04-08 Tower 3, West Cove Condos, 10 West Coast Crescent, Singapore 128041 respectively, are the inventors of the invention in **METHOD AND APPARATUS FOR FORMING A METALLIC FEATURE ON A SUBSTRATE** for which we have executed an application for a Patent of the United States which is identified by Pennie & Edmonds LLP docket no. 11042-005 and we hereby authorize Rory J. Radding, of Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, New York 10036-2711, to insert here in parentheses (application No. 10/081,768, filed 2/22/02), the filing date and application number of said application when known,

and WHEREAS, Institute of Materials Research and Engineering, ASSIGNEE, with principal offices at 3 Research Link, Singapore 117602, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date March 5, 2002

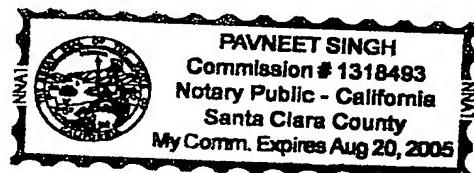

William T. Chen (Signature)

State of CA }
County of Santa Clara SS.:
} SS.

On 03/05/02, 2002, before me, PAVNEET SINGH, Notary Public, personally appeared William T. Chen, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Pavneet Singh.



Date 27/2/02


Peter M. Moran (Signature) L.S.

Before me, a witness, personally appeared Peter M. Moran, to me known and known to me to be the person of that name, who signed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Date 27/2/02


Signature of Witness
Chris Lee Sze

Name of Witness